

ABSTRACT

A valve module includes a valve housing (2) providing a chamber accommodating at least part of a valve member (3). The chamber forms part of a high pressure side of the valve. A valve port leads from the valve chamber to a low pressure side of the valve and the valve member co-operates with a valve seat around the valve port. The valve member is displaceable inwardly away from the valve seat to open the valve against a biasing spring biasing the valve member towards its closed position. The valve housing has on its low pressure side a shroud or wall (200) extending transversely with respect to the valve axis and spaced from the valve so as to deflect any gas exiting from the valve port in the direction parallel with the valve axis. The valve housing defines with the shroud or transverse wall (200) one or more transverse passages (113) leading to openings at the sides of the valve housing for the passage of gas issuing from the valve port.

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number
WO 2004/051388 A2

(51) International Patent Classification⁷: **G05D 16/10**

(21) International Application Number:
PCT/GB2003/005197

(22) International Filing Date: 2 December 2003 (02.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0228294.5 4 December 2002 (04.12.2002) GB

(71) Applicant (for all designated States except US): **F.X.K. PATENTS LTD.** [GB/GB]; The Old School House, Church Hill, Akeley, Buckinghamshire MK18 5HB (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KAY, Francis, Xavier** [GB/GB]; The Old School House, Church Hill, Akeley, Buckinghamshire MK18 5HB (GB).

(74) Agent: **CARSTAIRS, J., C.**; Forrester Ketley & Co, Forrester House, 52 Bounds Green Road, London N11 2EY (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PI, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPROVEMENTS IN OR RELATING TO VALVES

(57) Abstract: A valve module includes a valve housing (2) providing a chamber accommodating at least part of a valve member (3). The chamber forms part of a high pressure side of the valve. A valve port leads from the valve chamber to a low pressure side of the valve and the valve member co-operates with a valve seat around the valve port. The valve member is displaceable inwardly away from the valve seat to open the valve against a biasing spring biasing the valve member towards its closed position. The valve housing has on its low pressure side a shroud or wall (200) extending transversely with respect to the valve axis and spaced from the valve so as to deflect any gas exiting from the valve port in the direction parallel with the valve axis. The valve housing defines with the shroud or transverse wall (200) one or more transverse passages (113) leading to openings at the sides of the valve housing for the passage of gas issuing from the valve port.

WO 2004/051388 A2